

What is claimed is:

1. A flexible mold comprising:

a support made of a material having a tensile strength of at least 5 kg/mm² and containing moisture to saturation at a temperature and a relative humidity at the time of use by a moisture absorption treatment applied in advance; and

5 a molding layer disposed on said support, a surface thereof being provided with a groove pattern having a predetermined shape and a predetermined size.

2. A flexible mold as defined in claim 1, wherein said support and said molding layer

10 are transparent.

3. A flexible mold as defined in claim 1 or 2, wherein said support is a film of a hygroscopic plastic material.

15 4. A flexible mold as defined in claim 3, wherein said hygroscopic plastic material is at least one kind of plastic material selected from the group consisting of polyethylene terephthalate, polyethylene naphthalate, stretched polypropylene, polycarbonate and triacetate.

20 5. A flexible mold as defined in any one of claims 1 to 4, wherein said support has a thickness of 0.05 to 0.5 mm.

6. A flexible mold as defined in any one of claims 1 to 5, wherein said molding layer comprises a base layer made of a first curable material having a viscosity of 3,000 to 25 100,000 cps at 10 to 80°C and a coating layer made of a second curable material having a viscosity of not higher than 200 cps at 10 to 80°C, the coating layer being applied over a surface of said molding layer.

7. A flexible mold as defined in claim 6, wherein said first curable material and said 30 second curable material are photo-curable materials.

8. A flexible mold as defined in any one of claims 1 to 7, wherein the groove pattern of said molding layer is a lattice pattern constituted by a plurality of groove portions arranged substantially in parallel while crossing one another with predetermined gaps among them.

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9. A method of manufacturing a microstructure having a projection pattern having a predetermined shape and a predetermined size on a surface of a substrate, comprising the steps of:

10 preparing a flexible mold comprising a support made of a material having a tensile strength of at least 5 kg/mm² and containing moisture to saturation at a temperature and a relative humidity at the time of use by a humidity absorption treatment applied in advance, and a molding layer disposed on said support and having a groove pattern having a shape and a size corresponding to those of said projection pattern on a surface thereof;

15 arranging a curable molding material between said substrate and a molding layer of said mold and filling said molding material into said groove pattern of said mold; curing said molding material and forming a microstructure having said substrate and said projection pattern integrally bonded to said substrate; and releasing said microstructure from said mold.

20 10. A manufacturing method as defined in claim 9, wherein said molding material is a photo-curable material.

11. A manufacturing method as defined in claim 9 or 10, wherein said microstructure is a back plate for a plasma display panel.

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12. A manufacturing method as defined in claim 11, which further comprises a step of independently arranging a set of address electrodes substantially in parallel with each other while keeping a predetermined gap between them on a surface of said substrate.